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Cooking Turkey in Aluminum Foil

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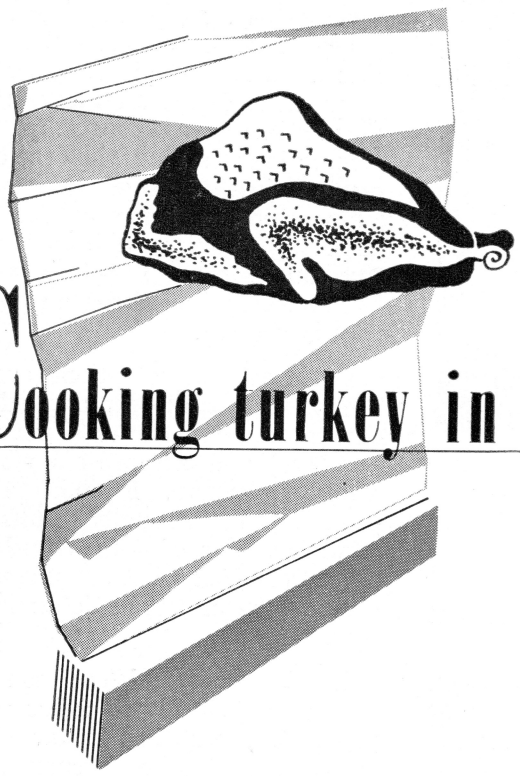

Roasting a good-sized turkey by the traditional method always has co for some expert maneuvering on the part of the homemaker. Does the of aluminum foil make turkey roasting easier? Some Iowa State Col food researchers discuss the advantages and disadvantages of this met

Cooking turkey in ALUMINUM FOIL

by Belle Lowe, Margaret Edgar, Florence Schoenleber and Joy Young

PREPARING a whole turkey for the family dinner table has never been a simple task, as any homemaker knows. A large turkey is heavy to lift and hard to handle before roasting. But it's even more inconvenient to lift and turn while hot—an operation often done to obtain uniform cooking of the back and breast.

Now, a new procedure for cooking turkey presents itself—the use of aluminum foil. Does it work? What are its advantages? Its disadvantages?

In our tests, foil-wrapped turkeys were compared with non-wrapped turkeys cooked at the traditional temperatures. In all, 157 turkeys were used for these comparisons. Preliminary tests were made to determine if procedures could be worked out for cooking the turkeys without a rack and without turning during cooking.

Findings in Brief . . .

The oven temperature and procedure reported in this article for cooking turkeys in foil (see time table) gives turkey meat with aroma, flavor, tenderness and juiciness comparable to that of non-wrapped turkey meat obtained by cooking at the oven temperatures, 300°to 325° F., recommended by the Poultry and Egg National Board. Tenderness of the turkey muscles remained the same regardless of the oven temperature used and whether or not the turkey was wrapped in

Cooking Turkey in Aluminum Foil

Advantages:	*Disadvantages:*
Prevents spattering of drippings over the oven.	Does not give as good a browned appearance, particularly along the back.
No special rack or equipment is needed.	Muscles may pull away from bones.
Foil prevents burning of the turkey; thus, a high oven temperature which shortens cooking time may be used.	More fuel required because of high temperature used.
Less loss of moisture and more drippings saved for making gravy.	

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ABOVE: Lay turkey on its back in middle of foil. (If you wish, place small piece of foil over ends of legs to help prevent puncturing outside foil wrap.) Then bring wrapping foil from one side up and over breast of turkey. Bring foil from other side up and lay over first piece. Overlap should be at least 3 inches. Don't use a lock fold to unite edges—it's too difficult to undo when ready for browning, and foil may burst if steam is held in too tightly.

BELOW: Fold foil over the breast down at both ends of turkey, pressing close to body. Bend foil from underneath turkey up and over the top piece of foil. Top of this last fold should be 3 inches or more above bottom of pan. This prevents drippings from running over top of fold. Large turkeys often have as much as 3 pints of drippings.

foil. There were, of course, individual variations in palatability among different birds cooked by any one method.

Turkeys cooked in foil have some outstanding characteristics. They do not brown as extensively, and the color has more of a grayish cast instead of a golden-brown tone. However, this may be overcome by turning back the foil 15 to 20 minutes before the turkey is done. The skin remains soft during cooking and is easy to carve. There is a tendency for the skin to tear easily and for the muscles to pull away from the bones. We noted that this happened most frequently where the turkey came in close contact with the foil on the bottom of the pan. The parts involved were areas along the back, along the wings and at the thigh joints at the junction to the body.

Actually, this falling away of the muscle and skin from the bone did not detract too much from the appearance if it occurred elsewhere than over the breast or if the skin was not broken along the keel bone. The muscles and skin pulled away from the keel bone in a few birds, which made them less attractive to carve at the table.

Turkeys cooked in foil to an internal high temperature of 185° F. (meat thermometer used) were always more well done than the non-wrapped turkeys cooked to the same temperature. There were more drippings and less loss of moisture by evaporation from foil-wrapped turkeys—thus plenty of juice for making gravy.

Foil Weight . . .

Light, medium and heavy foils were used on 30 turkeys of the same weight. Cooking time was the same. Satisfactory products were obtained with all weights of foil. However, the medium weight was preferred. Thin foil tore easily during wrapping and stuck to the skin more readily than other weights; heavy foil was stiff to fold.

Preparing Turkey . . .

If the turkey is frozen, let it defrost in its wrapping. This may take 2 to 3 days in the refrigerator, depending upon the size of the turkey. Wash the turkey and get it ready for cooking; then tie the ends of the legs to the tail. Lay the wings flat against the sides. If the wings stand out akimbo, a close wrap cannot be obtained.

Wrapping . . .

Wrap the turkey carefully. This is very important; if the drippings escape into the pan at the oven temperature used, they burn quickly, producing smoke and a very disagreeable odor. If you use 12-inch foil, take two long strips, lay them flat on the table and splice with a lock or drug store fold (see illustrations and directions for wrapping with the illustrations). Press the fold flat and tight to prevent leaks.

Place the wrapped turkey on its back either in a flat pan or in the oven broiler. If you use a pan, place it on the lowest oven rack. You needn't turn the turkey during cooking.

Oven Temperature . . .

Oven temperatures of 300, 325, 400, 450 and 500 degrees F. were used in the tests to determine which would be most satisfactory. Aluminum foil tends to delay heat penetration into the turkey. Thus, the temperature at which the oven is set is highly important. A temperature of 300° to 325° F. is not recommended for foil-wrapped turkeys. The cooking time is too long, and the turkey dries out too much.

The 450° to 500° F. temperatures (combined with opening the foil for browning) gave turkey meat comparable to that of non-wrapped turkeys cooked at 300° and 325° F. However, maintaining an oven temperature of 500° F. is difficult, and 450° F. is considered the best temperature at which to cook foil-wrapped turkey. At this temperature, the cooking time is shortened considerably over the time for non-wrapped turkeys cooked at 300° F.

Time . . .

Different turkeys of the same weight vary somewhat in the time required for cooking because of their individual variations. Weights are given without stuffing. Most food poisoning from turkeys and chickens, according to Public Health reports, comes from mishandling or not cooking the stuffing enough. It is suggested that the stuffing be baked outside of the turkey.

Now, if you'll compare the time table with those given for turkey roasted at temperatures of 300° to 325° F., you'll note that cooking time has been shortened considerably—in some cases, almost cut in half.

Browning . . .

Folding the foil back around the edges of the pan about 20 minutes before the end of the cooking period accomplishes two things: (1) The turkey develops a more attractive brown color. (2) The aroma is improved; opening the foil allows the pent-up, steamy odor to escape.

If you use a thermometer, it can be inserted at this time in the center of the thigh or breast. Continue to cook the turkey until the thermometer registers 180° to 190° F., depending on how well done you want the turkey.

Time Table for Cooking Foil-Wrapped Turkeys

Turkey weight (without stuffings or giblets per lb.)	Oven temperature (° F.)	Cooking time (minutes per lb.)	Total cooking time (hours)
8 to 10	450	16 to 15	2¼ to 2½
10 to 12	450	14 to 13	2¾ to 3
14 to 16	450	13 to 12	3 to 3¼
18 to 20	450	10 to 9	3¼ to 3½
22 to 24	450	9 to 8	3¼ to 3¾

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